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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/448,679	11/24/1999	CHRISTOPHER J. LORD	INTL-0252-US	5314

7590 12/18/2003

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EXAMINER
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TRAN, TRANG U

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 12/18/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/448,679

Applicant(s)

LORD ET AL.

Examiner

Trang U. Tran

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 01 December 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-33.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed Dec. 01, 2003 have been fully considered but they are not persuasive.

In re page 2, applicants argue, with respect to claim 1, that Lawlor does not disclose identifying noise in a first portion of a video frame. Lawlor analyzes a video frame by checking for data errors, not noise, e.g., Lawlor, col. 7. These data errors are determined by analysis of error correction codes and, if an error exists, an error flag is set.

In response, the examiner respectfully disagrees. As discussed in the last Office Action, noise is defined in "The IEEE Standard Dictionary of Electrical and Electronics Terms", Sixth Edition, published by the Institute of Electrical and Electronics Engineers, Inc. as "Unwanted disturbances superimposed upon a useful signal, which tend to obscure its information content. Random noise is the part of the noise that is unpredictable, except in a statistical sense."

Lawlor discloses in col. 1, lines 9-14, that "When digital image or video data is recorded or transmitted it can be corrupted by data errors. For example, portions of data recorded on and then replayed from a magnetic medium may suffer errors due to medium defects or dirt particles on the medium's surface". Dirt particles on the medium's surface would introduce "unwanted disturbance superimposed upon a useful signal, which tend to obscure its information content". Thus, the errors of Lawlor can be noise introduced from "dirt particles" on the medium's surface.

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Additionally, noise is also defined in "The IEEE Standard Dictionary of Electrical and Electronics Terms", Sixth Edition, published by the Institute of Electrical and Electronics Engineers, Inc. as "Any deviation between the output signal (converted to input units) and the input signal, except deviations caused by linear time invariant system response (gain and phase shift), a dc level shift, or an error in the sample rate. For example, noise includes the effects of random errors, fixed pattern errors, nonlinearities and time base errors (fixed error in sample time and aperture uncertainty)". Error in Lawlor is deviation between the output signal and the input signal; thus, the error or Lawlor is considered "noise" because it is deviation between the output signal and the input signal.

In re pages 2-3, applicants argue, with respect to claim 2, that Lawlor does not disclose associated a noise level with the first portion of a video frame and comparing the noise level to a predetermined value.

In response, the examiner respectfully disagrees. As discussed above with respect to claim 1, since the error of Lawlor is noise, the claim associating a noise level with the first portion of the video frame is anticipated by the three checks for the corrupted data element disclosed in col. 12, lines 44-64 and the claimed comparing the noise level to a predetermined value is anticipated by the threshold measurement and error flag analysis unit 640 disclosed from col. 13, line 57 to col. 14, line 24.

In re page 3, applicants argue, with respect to claim 4, nowhere does Lawlor disclose performing a plurality of arithmetic operations between first and second values associated with first and second portions of a video image.

In response, the examiner respectfully disagrees. The claimed arithmetic operations between first and second values is anticipated by Lawlor's interpolation coefficients disclosed from col. 15, line 16 to col. 17, line 21 because the interpolation coefficients are generated based on current element and the eight surrounding elements.

In re page 3, applicants argue, with respect to claim 5, that dependent claim 5 is further patentable as nowhere does Lawlor disclose that a current value (contended by the Office Action to meet this claim) is identified as a plurality of values associated with a first portion of a video frame.

In response, the examiner respectfully disagrees. The claimed a plurality of values associated with a first portion of a video frame is anticipated by the current element and the eight surrounding elements of Lawlor.

Regarding claims 7-8, applicants argue, with respect to claims 7-8, that nowhere does Lawlor disclose associating a predetermined value to either the type of video input signal or the type of noise in a video frame.

In response, the examiner respectfully disagrees. The claimed associating a predetermined value to either the type of video input signal or the type of noise in a video frame is anticipated by the selection of concealment coefficients shown in FIGS. 15A-E because the selection of concealment coefficients is based on the type of noise in a video frame.

In re pages 3-4, applicants argue, with respect to claim 9, nowhere does Lawlor disclose a storage medium coupled to a bus that includes a software program that

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detects noise in a first portion of a video frame and replace the first portion with a second portion of the frame.

In response, the examiner respectfully disagrees. Lawlor discloses in col. 18, lines 8-12 that "Although the embodiment of the invention described above has been implemented predominantly in hardware, it will be clear to the skilled man that the same function could be achieved using suitable software running on a general purpose computer". In order to using software to perform functions of Lawlor, there must be a storage medium for storing the software program. Thus, a storage medium includes a software program that detects noise in a first portion of a video frame and replace the first portion with a second portion of the frame is an inherent characteristic of Lawlor's system.

In re page 4, applicants argue, with respect to claim 25, that Lawlor does not disclose analyzing two portions of a video frame with two different adjacent portions to obtain two different results.

In response, the examiner respectfully disagrees. Each FIGS. 15B-15E of Lawlor is a value. Thus, the claimed analyzing two portions of a video frame with two different adjacent portions to obtain two different results is anticipated by at least two of FIGS. 15B-15E of Lawlor.

In re page 4, applicants argue, with respect to claim 26, that nowhere does Lawlor disclose analyzing different portions of a video image where each of the portions comprises a plurality of units and the analyzing is performed on a unit by unit basis.

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In response, the examiner respectfully disagrees. As discussed above with respect to claim 25, the selection of the concealment coefficients shown in FIGS. 15A-15E anticipated the claimed analyzing different portions of a video image where each of the portions comprises a plurality of units and the analyzing is performed on a unit by unit basis.

In re pages 4-5, applicants argue, with respect to claim 27, that nowhere does Lawlor disclose calculating a threshold based upon an amount of plurality of units per a respective portion of a video frame.

In response, the examiner respectfully disagrees. As discussed above, the selection of concealment coefficients shown in FIGS. 15A-15E of Lawlor is based on the error flags. The error flags anticipate the claimed threshold and are based upon an amount of plurality of units per a respective portion of a video frame.

In re page 5, applicants argue, with respect to claim 28, that nowhere does Lawlor disclose calculating a sum of absolute differences between two groups of adjacent portions of a video frame.

In response, the examiner respectfully disagrees. As discussed above, the claimed calculating a sum of absolute differences between two groups of adjacent portions of a video frame is anticipated by the concealment coefficients shown in FIGS. 15A-15E of Lawlor.

In re page 5, applicants argue, with respect to claim 31, that nowhere does Lawlor disclose encoding the replaced first portion of the video frame is anticipated by

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frame store 910 of Fig. 16 because the frame store 910 encodes the replaced first portion of the video frame of concealment apparatus 600.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Trang U. Tran** whose telephone number is **(703) 305-0090**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W. Miller**, can be reached at **(703) 305-4795**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231


**or faxed to:**

**(703) 872-9306 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 308-HELP.

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**MICHAEL H. LEE**  
**PRIMARY EXAMINER**

December 15, 2003